Unsorted Arrays vs Binary Search

Choose difficulty: ☑ Beginner ☑ Intermediate ☑ Advanced

1. How is a linear search performed?

○ a: An element is copied linearly in another array until the required element comes up.

Explanation

○ b: Array is broken into smaller subarrays and elements are searched recursively.

Explanation

◉ c: Array is traversed from left to right using a loop, until the required element comes up.

○ d: None of the above

2. In the worst case, what is the time complexity of linear search?

○ a: O(log N)

○ b: O(1)

◉ c: O(N) Explanation

○ d: O(N log N)

3. In the best case, what is the time complexity of linear search?

◉ a: O(1) Explanation

In the best case, when the required element is in the beginning of the array, linear search just needs to access the first element of the array. Hence the resulting time complexity is constant.

○ b: O(N log N)

○ c: O(log N)

○ d: O(N)

4. How is linear search disadvantageous?

◉ a: Time taken to find an element is more as compared to other searching algorithms

Explanation

Yes, there are other search algorithms available which perform much better than linear search.

○ b: Space complexity to perform a linear search increases the memory overhead

Explanation

There is no role of space complexity while performing linear search. Since we are assessing and comparing the elements in the array, instead of